

Code Change Proposal Supplemental Information

The following supplemental information is provided in support of the following code change proposal (previously submitted):

780 CMR 8th Edition, Chapter 9 §909.20.5.1 Proposed MA Front End Amendments per FFPF

Proposed Code Change

Delete proposed front end amendment:

~~909.20.5.1—Add~~

~~**909.20.5.1 High-Rise Buildings.** For high-rise buildings, a minimum of one stairway must be designed to comply with Sections 909.20.1, 909.20.2 and either 909.20.3 or 909.20.4.~~

Separate from the model building code (e.g. International Building Code) and the requirements contained therein, the National Fire Protection Association (NFPA), promulgates various code and standards that focus specifically of fire protection and life safety, including:

NFPA 101, *Life Safety Code*, 2009 edition

The *Life Safety Code* addresses those construction, protection, and occupancy features necessary to minimize danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire (NFPA 101 §1.1.2). The *Life Safety Code* establishes minimum criteria for the design of egress facilities so as to allow prompt escape of occupants from buildings or, where desirable, into safe areas within buildings (NFPA 101 §1.1.3). The *Life Safety Code* addresses other considerations that are essential to life safety in recognition of the fact that life safety is more than a matter of egress (NFPA 101 §1.1.3).

The *Life Safety Code* also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire (NFPA 101 §1.1.4).

The purpose of the *Life Safety Code* is to provide the minimum requirements, with due regard to function, for the design, operation, and maintenance of buildings and structures for safety to life from fire. Its provisions will also aid life safety in similar emergencies (NFPA 101 §1.2).

NFPA 92A, *Standard for Smoke-Control Systems Utilizing Barriers and Pressure Differences*, 2006 edition

NFPA 92A applies to the design, installation, acceptance testing, operation, and ongoing periodic testing of dedicated and nondedicated smoke control systems (NFPA 92A §1.1).

The purpose of NFPA 92A is to establish requirements for smoke-control systems that use pressure differences across barriers to accomplish one or more of the following (NFPA 92A §1.2.1):

- Inhibit smoke from entering stairwells, means of egress, smoke refuge areas, elevator shafts, or similar areas
- Maintain a tenable environment in smoke refuge areas and means of egress during the time required for evacuation
- Inhibit the migration of smoke from the smoke zone
- Provide conditions outside the smoke zone that enable emergency response personnel to conduct search and rescue operations and to locate and control the fire
- Contribute to the protection of life and to the reduction of property loss

NFPA 101 & 92A – Smokeproof Enclosures

According to the *Life Safety Code* a pressurized exit stair enclosure is an acceptable smokeproof enclosure, and such a system improves protection against products of combustion entering the enclosure (NFPA 101 §7.2.3).

The *Life Safety Code* requires the use of smokeproof enclosure stairways in existing, non-sprinklered, high-rise apartment buildings ONLY (NFPA 101 §31.2.11.1).

Vestibules are not required as part of the building smoke-control system (NFPA 92A §5.3.5.1). Stairwells that do not have vestibules can be pressurized using systems that are currently available (NFPA 92A §A.5.3.5.1).

Where vestibules are provided, either pressurized or nonpressurized vestibules are permitted (NFPA 92A §5.3.5.2). Purged or vented vestibule systems fall outside the scope of NFPA 92A. Hazard and/or engineering analyses would be required to determine the benefits, if any, of pressurizing, purging, or exhausting vestibules on the stairwell (NFPA 92A §A.5.3.5.2).

Conclusion

In light of the above information and considering the information previously submitted, I respectfully request that the Board delete the proposed new Section 909.20.5.1.

Submitted by:

A handwritten signature in blue ink, appearing to read "Eric H. Cote", with a long horizontal flourish extending to the right.

Eric H. Cote, P.E.